REMARKS

I. PENDING CLAIMS AND SUPPORT FOR AMENDMENTS

Upon entry of this amendment, claims 1-13 will be pending in this application.

Applicants have amended claim 1 to clarify that the vessel has an interior volume or chamber in fluid communication with the inlet and outlet, that this interior volume or chamber is formed by a wall with an opening therein, and that the cover closes this opening in the wall, further defining the interior volume or chamber. Support for this amendment can be found in original claim 8.

Claims 1 and 12 have been amended to clarify that loading and unloading of the cover occurs at the periphery. More particularly, loading forces (forces that hold the cover against the wall, effectively sealing the interior volume) are distributed around the periphery of the cover. In addition, unloading forces (forces that lift the cover away from the wall, effectively opening the interior volume of the chamber), which allow the user access to the interior of the device (e.g., to change or replace any media disposed therein) are also distributed around the periphery of the cover. Support for this amendment can be found in the specification at page 3, line 18 to page 4, line 2.

No new matter has been added.

II. ANTICIPATION REJECTION

In paragraph 2 of the Office action, the Examiner has rejected claims 1-6 and 10-13 under 35 U.S.C. § 102(b) as anticipated by Messinger et al. (U.S. Patent No. 4,617,117). Applicants respectfully traverse this rejection and request reconsideration and withdrawal thereof.

Messinger et al. discloses a jacking ring that may or may not exert loading force on the periphery of a cover when closing the device shown in Messenger et al.. What is clear, however, is that Messinger et al. does not disclose or suggest a device where an unloading force is exerted on the periphery of a cover to remove the cover from the device. An examination of the drawings of Messinger et al. makes clear that there is no mechanism by which such unloading forces could be applied at the periphery of the cover. The only place for unloading forces to be applied in the Messenger et al. device is through central boss 25. Messenger et al. explains the loading and unloading process at column 5, lines 36-59:

> It will now be apparent that when the top cover 16 is threaded onto the housing, it engages the removable cover 4 both at its central portion adjacent the central aperture of the ring, in the region of boss 25 on the cover, and also at the external periphery thereof, at the ledge 17 of the top cover bearing against the flange 20. The jack ring thus carries the removable cover 4 into tight sealing engagement with the housing, closing off the fluid chamber when it has been fully threaded onto the housing. At this point, the internal peripheral wall of the top cover 16 is in close engagement with the end of the housing, which is shapes so as to match, and the ledge 17 holds the flange 20 of the removable cover in position against the end of the housing. The cover is loosely held in position so that no binding occurs between the cover and the jack ring.
>
> When the removable cover is to be separated from the housing to gain access to the chamber 2, the top cover 16 is simply rotated off the housing. When this is done, the cover 16 engages the flange 28 of the cover retaining screw 27, and lifts the removable cover 4, up and away from the housing. When the chamber is to be sealed off again, the operation is repeated, in reverse order.

[Emphasis added].

The underlined portion of the first paragraph calls into question the Examiner's conclusion that loading in Messenger et al. occurs primarily at the

periphery, since it is clear from Messenger et al. that a significant portion of the force driving the cover onto the device is exerted at the central boss.

Perhaps more significantly, however, are the underlined portions of the second quoted paragraph. These clearly indicate that the sole unloading force lifting the cover off of the device when the jack ring is unscrewed is applied at the central boss, in contradistinction to Applicants' claims.

This distinction in methods for applying loading and unloading forces is significant. Applicants' device is designed with the goal of achieving a removable cover to a pressure vessel that must remain water-tight. To accomplish this, Applicants' device uses an O-ring to provide a water tight seal. Applicants device uses rotation as the mechanism for loading and unloading the cover from the device. In order to prevent torsion of the O-ring, Applicants' device uses a jacking ring to apply pressure to load and unload the cover. However, by applying this pressure at the periphery of the device to both load and unload the cover, Applicants avoid the need for the retaining screw and central boss required by Messenger et al. This reduces the number of parts in the device, eliminating a point of potential failure (the retaining screw), and simplifies the molding required to obtain the cover (by eliminating the threaded central boss), leading to a less expensive, more reliable pressure vessel. The pressure vessel is more reliable using the arrangement claimed by Applicants because the central boss in Messenger et al. passes completely through the sealing cover, necessitating an additional water-tight seal, which is subject to failure. Applicants' cover has no such additional seal, making it more reliable.

Because Messenger et al. fail to disclose all of the elements of Applicants' claims, this reference fails to anticipate any of the claims, and the Examiner's rejection should be withdrawn.

III. OBVIOUSNESS REJECTION

In paragraph 6 of the Office action, the Examiner has rejected claims 7-9 under 35 U.S.C. § 103(a) as obvious over Messenger et al. in view of Cooper (U.S. Patent No. 4,316,801). Applicants respectfully traverse this rejection and request reconsideration and withdrawal thereof.

As explained above, Messenger et al. does not disclose a device where both loading and unloading forces are exerted predominantly at the periphery of the cover. Moreover, Messenger et al. does not suggest such an arrangement. To the contrary, every drawing and all of the disclosure of Messenger et al. are directed to devices having a central boss and a retaining screw, both of which function to exert significant loading forces, and all of the unloading forces, at the center of the cover. Eliminating this central boss and the retaining screw would essentially destroy the invention of Messenger et al., leaving no way to effectively exert forces to remove the cover from the device.

Cooper et al. does not cure this deficiency. To the contrary, Cooper et al. provides no mechanism for applying an unloading force to the device: when the device is to be separated, jack ring 10 is simply unscrewed, and gravity causes the bowl 3 to separate from filter head 1. Thus, combining the teachings of Cooper et al. with those of Messenger et al. would actually teach away from the claimed invention:

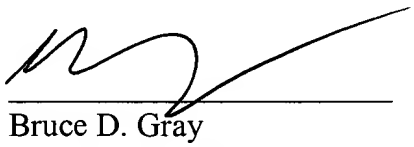
one of ordinary skill in the art would simply turn the device of Messenger et al. upside down and allow the cover to simply fall away from the housing. In such an arrangement, the force of gravity can be thought of as distributed over the entire surface of the cover, or concentrated at its centroid. In either case, it is not exerted principally at the periphery, as recited in the claims.

Neither of the cited references provides any disclosure of any mechanism for removing the cover by exerting force primarily at the periphery of the cover. Because neither of the cited references (nor their combination) teaches each of the elements of Applicants' claims, the claimed invention would not have been obvious to one of ordinary skill in the art at the time that the invention was made. Absent a *prima facie* case of obviousness, the Examiner's rejection should be withdrawn.

Applicants submit that the present application is in condition for immediate allowance, and an early notification to this effect is earnestly solicited.

The Commissioner is hereby authorized to charge any deficiencies or credit any overpayment to Deposit Order Account No. 11-0855.

Respectfully submitted,



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